

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 or Fax (703) 746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

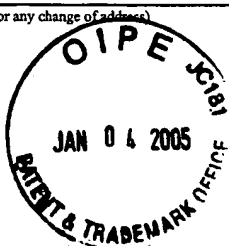
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

27717 7590 10/13/2004

SEYFARTH SHAW
 55 EAST MONROE STREET
 SUITE 4200
 CHICAGO, IL 60603-5803

01/05/2005 HGUTEMAR 00000066 10645169

01 FC:2501 700.00 OP
 02 FC:1504 300.00 OP
 03 FC:8001 12.00 OP



Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

Christine M. Pavlyk (Depositor's name)
 [Signature] (Signature)
 12/29/04 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,169	08/19/2003	Chul-Ju Hwang	TJK/408	7621

TITLE OF INVENTION: ATOMIC LAYER DEPOSITION METHOD AND SEMICONDUCTOR DEVICE FABRICATING APPARATUS HAVING ROTATABLE GAS INJECTORS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$685	\$300	\$985	01/13/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHEN, BRET P	1762	427-248100

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Timothy J Keefer
 2 Reg No 35,567
 3 Seyfarth Shaw LLP

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Jusung Engineering Co., Ltd

Kyonggi-do, Republic of Korea

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☒ Advance Order - # of Copies 4 four

4b. Payment of Fee(s):

- ☒ A check in the amount of the fee(s) is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☒ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 191351 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature

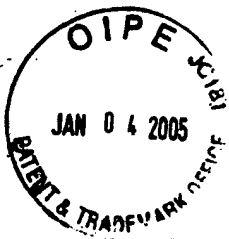
Date

Typed or printed name Timothy J Keefer

Registration No. 35,567

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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TJK/408

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of :

HWANG

Application No. 10/645,169

Application Filing Date: 08/19/2003

)
) ATOMIC LAYER DEPOSITION
) METHOD AND
) SEMICONDUCTOR DEVICE
) FABRICATING APPARATUS
) HAVING ROTATABLE GAS
) INJECTORS

TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Mail Stop: Issue Fee

Dear Sir:

Please find enclosed the following in the above-captioned patent application:

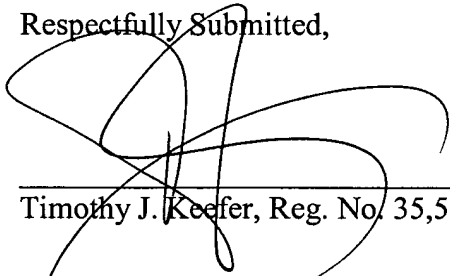
1. Part B – Fee(s) Transmittal in duplicate; and
2. A check in the amount of \$1012.00 in payment of the issue fee, publication fee and soft copy fee.

Please charge any additional fees to Deposit Account No. 19-1351. A duplicate of this transmittal is enclosed.

Please acknowledge receipt of the above by returning the enclosed self-addressed, stamped postcard.

Respectfully Submitted,

Date: 12/29/04



Timothy J. Keefer, Reg. No. 35,567

SEYFARTH SHAW LLP
55 East Monroe Street
Suite 4200
Chicago, Illinois 60603-5803
Telephone: (312) 346-8000
Facsimile: (312) 269-8869

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: 12/29/04


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Effective on 10/01/2004. Patent fees are subject to annual revision.

FEETRANSMITTAL

JAN 04 2005

For FY 2005☒ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 1,012.00**Complete if Known**

Application Number	10/645,169
Filing Date	08/19/2003
First Named Inventor	HWANG
Examiner Name	
Art Unit	
Attorney Docket No.	TJK/408

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit Card ☐ Money Order☒ Deposit Account ☐ None

Deposit Account Number 19-1351

Deposit Account Name Seyfarth Shaw LLP

The Director is hereby authorized to: (check all that apply)

- ☐ Charge fee(s) indicated below
- ☐ Charge fee(s) indicated below, except for the filing fee
- ☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17
- ☐ Credit any overpayments

to the above-identified deposit account.

☐ Other (please identify):

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION**1. BASIC FILING FEE**

Fee Description	Fee (\$)	Small Entity Fee (\$)	Fee Paid(\$)
Utility Filing Fee	790	395	
Design Filing Fee	350	175	
Plant Filing Fee	550	275	
Reissue Filing Fee	790	395	
Provisional Filing Fee	160	80	

Subtotal (1) \$**FEE CALCULATION** (continued)**2. EXTRA CLAIM**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20	18	9
Each independent claim over 3	88	44
Multiple dependent claims	300	150
For Reissues, each claim over 20 and more than in the original patent	18	9
For Reissues, each independent claim more than in the original patent	88	44

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
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2 - 20 or HP = _____ x _____ - _____

HP = highest number of total claims paid for, if greater than 20

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
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2 - 3 or HP = _____ x _____ - _____

HP = highest number of independent claims paid for, if greater than 3

Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
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Subtotal (2) \$ 0**3. OTHER FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)	Fee Paid(\$)
1 -month extension of time	110	55	
2-month extension of time	430	215	
3 -month extension of time	980	490	
4-month extension of time	1,530	765	
5-month extension of time	2,080	1,040	
Information disclosure stmt. fee	180	180	
37 CFR 1.17(q) processing fee	50	50	
Non-English specification	130	130	
Notice of Appeal	340	170	
Filing a brief in support of appeal	340	170	
Request for oral hearing	300	150	
Other: 1 fee; Pub. fee; 4 copies			1012.00

Subtotal (3) \$ 1012.00**SUBMITTED BY**

Signature

Registration No. 35,567
(Attorney/Agent)

Telephone (312) 346-8000

Name (Print/Type) Timothy J. Keefer

Date 12/29/04

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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